

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

1. (Previously presented): A method for the treatment of a lignin-containing material comprising contacting the lignin-containing material with an ionic liquid to extract the lignin into the ionic liquid.
2. (Previously presented): The method of claim 1, wherein the lignin from the lignin-containing material extracted into the ionic liquid is recovered from the ionic liquid.
3. (Original): The method of claim 2, wherein solids remaining after the lignin has been extracted into the ionic liquid are separated from the ionic liquid.
4. (Previously presented): The method of claim 1, wherein the lignin-containing material is contacted with a single species of ionic liquid.
5. (Withdrawn): The method of claim 1, wherein the lignin-containing material is contacted with a mixture of different ionic liquid species.
6. (Withdrawn): The method of claim 1, wherein the lignin-containing material is contacted with a combination of the ionic liquid and a cosolvent.
7. (Withdrawn): The method of claim 6, wherein the lignin-containing material is contacted with a combination of the ionic liquid and water.

8. (Withdrawn): The method of claim 1, wherein the lignin-containing material is contacted with a solvent composition comprising between 50 and 100% of the ionic liquid.

9. (Previously presented): The method of claim 1, wherein the ionic liquid comprises:

- a substituted or unsubstituted aryl organic acid anion; and
- an ionic liquid-forming inorganic cation or an organic cation.

10. (Original): The method of claim 9, wherein the anion component of the ionic liquid is a substituted or unsubstituted phenyl, naphthyl or pyridyl organic acid anion.

11. (Previously presented): The method of claim 10, wherein the aryl organic acid anion is substituted with 1 to 4 substituents independently selected from the group consisting of alkyl, alicyclyl, aryl, aralkyl, alkylaryl, heteroaryl, halogeno, hydroxy, nitro, haloaryl and sulfonate.

12. (Previously presented): The method of claim 9, wherein the organic acid anion is a sulfonate, sulfate, carboxylate, phosphinate or a phosphate.

13. (Previously presented): The method of claim 9, wherein the organic acid anion is a sulfonate.

14. (Withdrawn): The method of claim 9, wherein the anion is a substituted or unsubstituted aryl disulfonate anion.

15. (Previously presented): The method claim 9, wherein the cation of the ionic liquid is a substituted or unsubstituted imidazolium, triazolium, pyrazolium, pyridinium, pyrrolidinium, piperidinium, phosphonium equivalents of one of the preceding groups, an ammonium, phosphonium or sulfonium cation.

16. (Original): The method of claim 15, wherein the cation is substituted by one or more selected from the group consisting of aliphatic, alicyclyl, aryl, aralkyl, alkylaryl, heteroaryl, hydroxy, nitro and haloaryl.

17. (Previously presented): The method of claim 1, wherein the ionic liquid is a substituted or unsubstituted imidazolium, triazolium, pyrazolium, pyridinium, pyrrolidinium, piperidinium, ammonium, phosphonium or sulfonium salt of a substituted or unsubstituted aryl sulfonate.

18. (Previously presented): The method of claim 1, wherein the lignin-containing material is contacted with a kraft alkali liquor in the presence of an ionic liquid additive.

19. (Previously presented): The method of claim 1, wherein the lignin-containing material is a ligno-cellulosic material.

20. (Original): The method of claim 19, wherein the lignin is selectively extracted into the ionic liquid, without significant degradation of the cellulose and hemicellulose of the ligno-cellulosic material.

21. (Previously presented): The method of claim 1, wherein the lignin-containing material comprises a plant or plant derivative material.

22. (Previously presented): The method of claim 1, wherein the lignin-containing material is selected from one or more of lignocellulosic residues of sugar, wheat, rice and corn or other biomass, agricultural grasses, woodchips, bamboo, as well as any materials proximately or ultimately derived from plants.

23. (Previously presented): The method of claim 1, comprising contacting the lignin-containing material with the ionic liquid to extract the lignin and optionally other chemicals into the liquid phase, and separating the liquid phase from remaining solids.

24. (Previously presented): The method of claim 23, wherein the lignin-containing material is a lignocellulosic material, and the remaining solids comprise cellulosic fibre.

25. (Previously presented): The method of claim 23, wherein the lignin-containing material is contacted with the ionic liquid at an elevated temperature.

26. (Previously presented): The method of claim 25, wherein the elevated temperature is between 50 and 200°C.

27. (Original): The method of claim 26, wherein the lignin-containing material is contacted with the ionic liquid at atmospheric pressure.

28. (Previously presented): The method of claim 23, wherein the time of contact is between 1 and 8 hours.

29. (Currently amended): The method of ~~any one of claims 23~~ claim 23, further comprising precipitating the lignin from the liquid phase after separation of the liquid phase from the remaining solids.

30. (Previously presented): The method of claim 29, further comprising recovering the precipitated lignin from the liquid phase.

31. (Previously presented): The method of claim 30, further comprising dewatering the diluted stream of ionic liquid, from which the precipitated lignin has been removed, to remove excess water therefrom.

32. (Previously presented): The method of claim 31, further comprising distilling the dewatered ionic liquid to remove other chemicals extracted from the lignin-containing materials therefrom.

33. (Previously presented): The method of claim 32, further comprising recycling the ionic liquid recovered following distillation for contacting with further lignin-containing material.

34. (Previously presented): The product produced by the method of claim 1.

35. (Previously presented): A method of using an ionic liquid in the treatment of a lignocellulosic material to extract lignin into the ionic liquid and preserve the cellulosic fibre comprising the step of contacting the ionic liquid with the lignocellulosic material.

36. (Previously presented): The method of claim 35, wherein the ionic liquid comprises:
- an substituted or unsubstituted aryl organic acid anion; and
- an ionic liquid-forming inorganic cation or an organic cation.

37. (Previously presented): The method of claim 36, wherein the anion component of the ionic liquid is a substituted or unsubstituted phenyl, naphthyl or pyridyl organic acid anion.

38. (Previously presented): The method of claim 36, wherein the aryl is substituted by between 1 and 4 substituents independently selected from the group consisting of alkyl, alicyclyl, aryl, aralkyl, alkylaryl, heteroaryl, halogeno, hydroxy, nitro, haloaryl and sulfonate.

39. (Previously presented): The method of claim 35, wherein the organic acid anion is a sulfonate, sulfate, carboxylates, phosphinate or a phosphate.

40. (Previously presented): The method of claim 35, wherein the organic acid anion is a sulfonate.

41. (Withdrawn): The method of claim 35, wherein the anion is a substituted or unsubstituted aryl disulfonate anion.

42. (Previously presented): The method of claim 35, wherein the cation of the ionic liquid is a substituted or unsubstituted imidazolium, triazolium, pyrazolium, pyridinium, pyrrolidinium, piperidinium, phosphonium equivalents of one of the preceding groups, an ammonium, phosphonium or sulfonium cation.

43. (Previously presented): The method of claim 42, wherein the cation is substituted by one or more selected from the group consisting of aliphatic, alicyclyl, aryl, aralkyl, alkylaryl, heteroaryl, hydroxy, nitro and haloaryl.

44. (Previously presented): The method of claim 43, wherein the ionic liquid is a substituted or unsubstituted imidazolium, triazolium, pyrazolium, pyridinium, pyrrolidinium, piperidinium, ammonium, phosphonium or sulfonium salt of a substituted or unsubstituted aryl sulfonate.

45. - 55. (Canceled)

56. (Currently amended): A method of using ~~the an~~ an ionic liquid ~~of claim 45~~ in the treatment of a natural material, comprising:

the step of contacting the ionic liquid with the natural material,

wherein the ionic liquid comprises:

an substituted or unsubstituted aryl organic acid anion; and

an ionic liquid-forming inorganic cation or an organic cation.

57. (Previously presented): The method of claim 56, wherein the natural material comprises plant materials and plant-derived materials.

58. (New): The method of claim 10, wherein the anion component of the ionic liquid is a xylene sulfonate.

59. (New): The method claim 15, wherein the cation of the ionic liquid is 1-ethyl-3-methylimidazolium.

60. (New): The method of claim 17, wherein the ionic liquid is 1-ethyl-3-methylimidazolium xylene sulfonate.